



California Cooperative
Snow Surveys
Bulletin 120-3-00

State of California
The Resources Agency

Department of
Water Resources

Water Conditions in California



Report 3 April 1, 2000

Gray Davis
Governor
State of California

Mary D. Nichols
Secretary for Resources
The Resources Agency

Thomas M. Hannigan
Director
Department of Water Resources

STATE OF CALIFORNIA

Gray Davis, Governor

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COOPERATING AGENCIES

Public Agencies

Buena Vista Water Storage District
East Bay Municipal Utility District
Eldorado Irrigation District
Friant Water Users Association
Kaweah Delta Water Conservation District
Kern Delta Water District
Kings River Conservation District
Lower Tule River Irrigation District
Merced Irrigation District
Modesto Irrigation District
Nevada Irrigation District
North Kern Water Storage District
Northern California Power Agency
Oakdale Irrigation District
Ornochumne-Hartnell Water District
Oroville-Wyandotte Irrigation District
Placer County Water Agency
Sacramento Municipal Utility District
San Joaquin Exchange Contractors Water Association
South San Joaquin Irrigation District
Tri-Dam Project
Truckee River Basin Water Commission
Tulare Lake Basin Water Storage District
Turlock Irrigation District
Yuba County Water Agency
Private Organizations
J.G. Boswell Company
Kaweah and St. Johns River Association
Kings River Water Association
Tule River Association
State Water Contractors

Municipalities

City of Bakersfield Water Department
City of Los Angeles Department of Water and Power
City and County of San Francisco Hetch Hetchy Water and Power

State Agencies

University of California
Central Sierra Snow Laboratory
Scripps Institution of Oceanography
California Department of Forestry & Fire Protection
California Department of Water Resources

Public Utilities

Pacific Gas and Electric Company
Southern California Edison Company

Federal Agencies

U.S. Department of Agriculture
Forest Service(14 National Forests)
Natural Resource Conservation Service
U.S. Department of Commerce
National Weather Service
U.S. Department of Interior
Bureau of Reclamation
Geological Survey, Water Resources
National Park Service(3 National Parks)
U.S. Department of Army
Corps of Engineers

Other Cooperative Programs

Nevada Cooperative Snow Surveys
Oregon Cooperative Snow Surveys

Summary of Water Conditions

April 1, 2000

March was a month of contrasts. The month started wet, continuing the stormy pattern of February. By midmonth, the weather had shifted into a dry spring pattern. The snowpack peaked about mid-March then decreased to erase the gains of the first two weeks by the end of the month. Fair and warmer weather and north and northeasterly winds caused some sublimation losses of water from the snow and early melting of the pack especially at lower elevations. With precipitation, snowpack water content, and runoff near average, and reservoir storage above normal, another good water supply year is expected for most California users.

Forecasts of April through July runoff call for an average runoff season, slightly above average in the north and slightly below average in the south. Water year runoff is forecasted to be about 105 percent of average compared to actual runoff of 110 percent last year.

Snowpack water content is approximately average at 100 percent compared to 110 percent one year ago. The range is relatively small, varying from about 120 percent in the North Coast region to 80 percent in the North Lahontan region. The overall water content seems to have decreased 5 percent during March.

Precipitation during March was about two thirds of average for the month. Seasonal precipitation percentages decreased slightly to 95 percent statewide which is the same as last year at this time. Seasonal amounts are somewhat above average in many areas of the north central part of the state but southern California is progressively drier.

Runoff so far during this season is also about 100 percent of average, less than the 115 percent reported last year on April 1. March runoff was about 110 percent of average. Estimated runoff of the eight major rivers of the Sacramento and San Joaquin River regions was 4.0 million acre-feet in March.

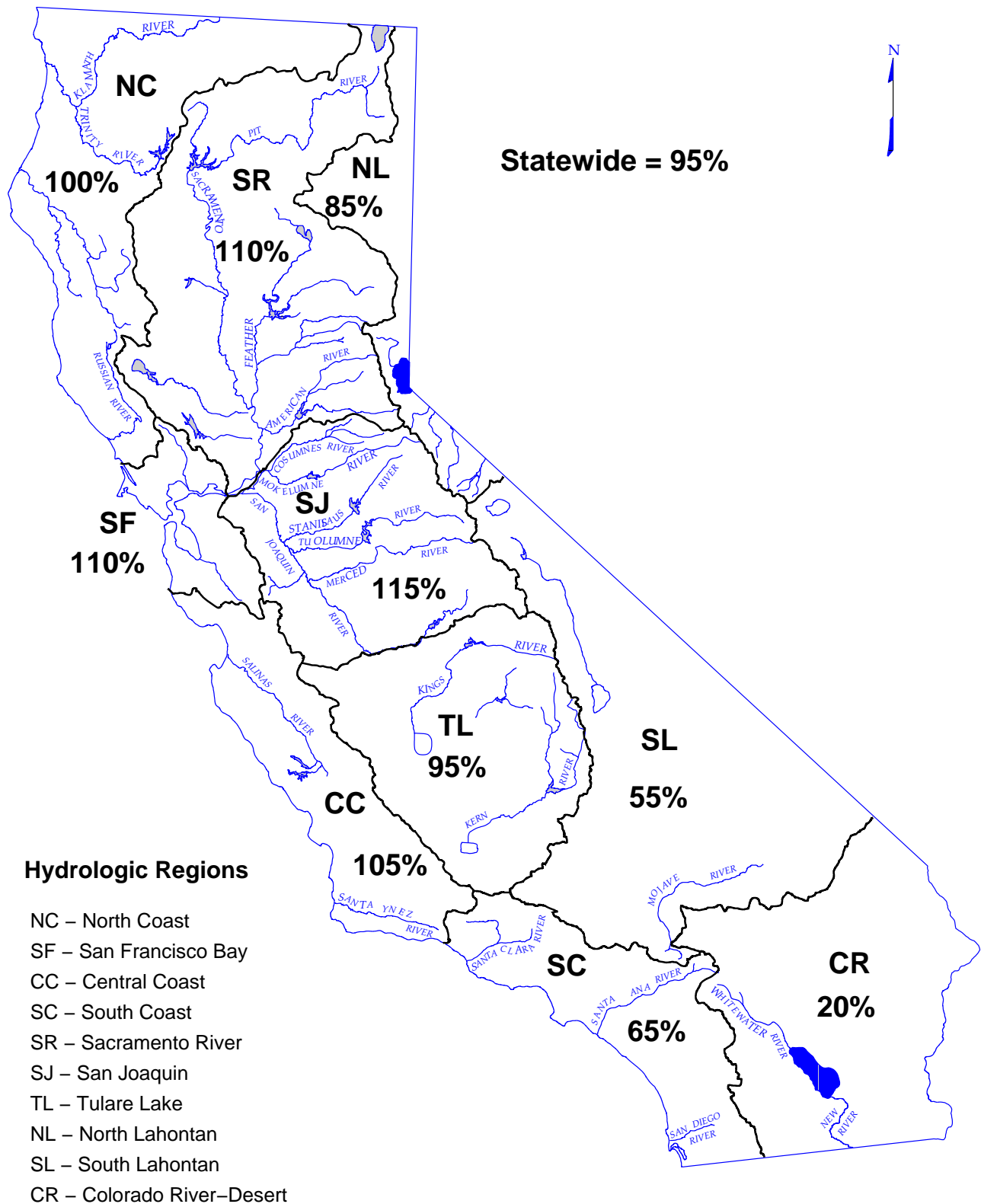
Reservoir storage is excellent at 115 percent of average and 79 percent of capacity. This is practically the same as last year and also the year before that in 1998.

SUMMARY OF WATER CONDITIONS IN PERCENT OF AVERAGE

HYDROLOGIC REGION	PRECIPITATION OCTOBER 1 TO DATE	APRIL 1 SNOW WATER CONTENT	APRIL 1 RESERVOIR STORAGE	RUNOFF OCTOBER 1 TO DATE	APR-JULY RUNOFF FORECAST	WATER YEAR RUNOFF FORECAST
NORTH COAST	100	120	110	90	115	105
SAN FRANCISCO BAY	110	---	120	105	---	---
CENTRAL COAST	105	---	135	110	---	---
SOUTH COAST	65	---	110	15	---	---
SACRAMENTO RIVER	110	100	110	110	105	110
SAN JOAQUIN RIVER	115	100	125	110	100	100
TULARE LAKE	95	95	120	80	90	85
NORTH LAHONTAN	85	80	165	85	90	90
SOUTH LAHONTAN	55	90	110	70	95	90
COLORADO RIVER- DESERT	20	---	---	---	---	---
STATEWIDE	95	100	115	100	100	105

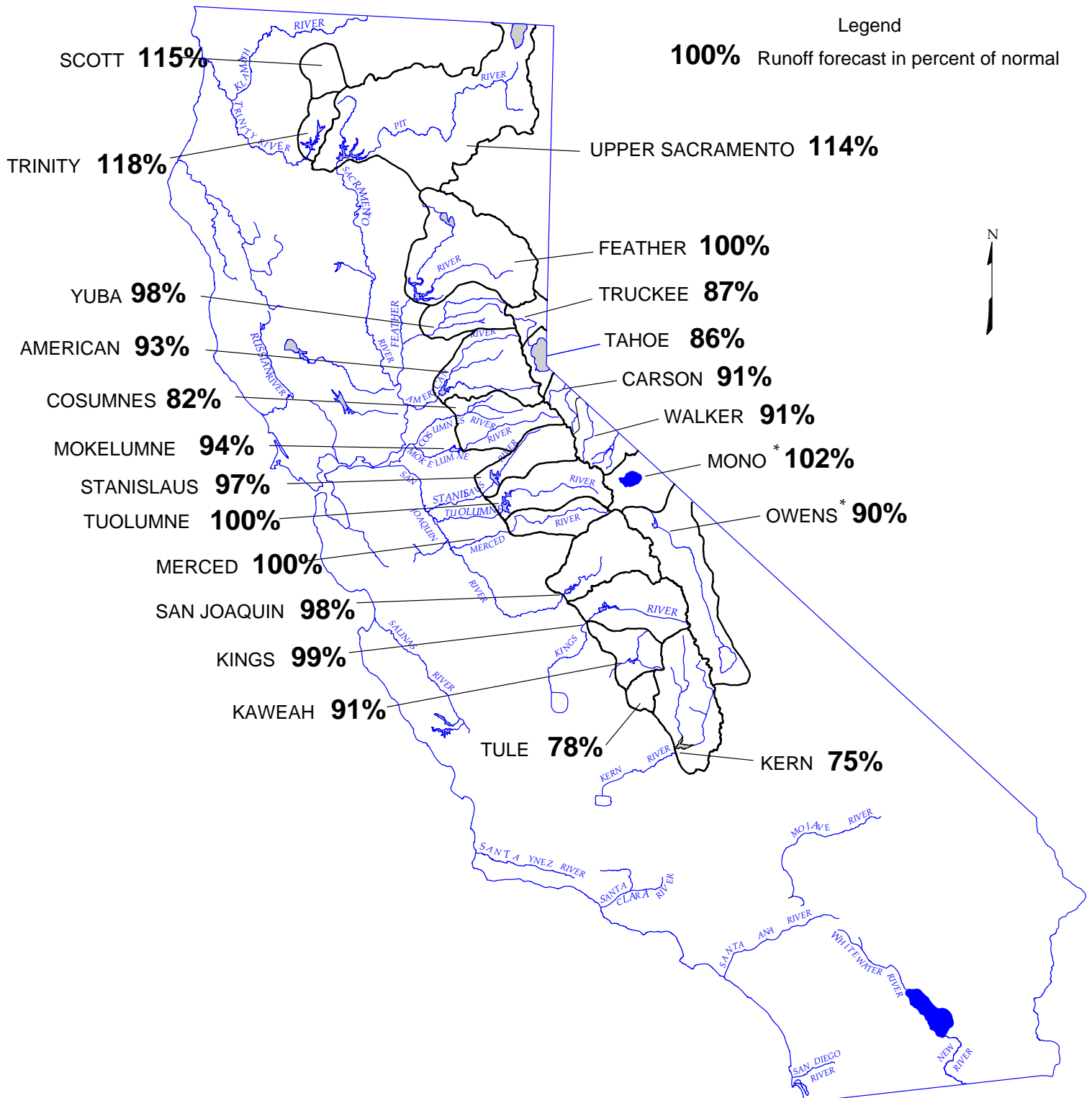
SEASONAL PRECIPITATION

IN PERCENT OF AVERAGE TO DATE
October 1, 1999 through March 31, 2000



WATER YEAR IS OCTOBER 1 THROUGH SEPTEMBER 30

FORECAST OF APRIL – JULY UNIMPAIRED SNOWMELT RUNOFF April 1, 2000



APRIL 1, 2000 FORECASTS
APRIL-JULY UNIMPAIRED RUNOFF

HYDROLOGIC REGION and Watershed	Unimpaired Runoff in 1,000 Acre-Feet (1)					
	HISTORICAL			FORECAST		
	50 Yr Avg (2)	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg	80 % Probability Range (1)
SACRAMENTO RIVER						
Upper Sacramento River						
Sacramento River at Shasta Lake (3)	297	702	39	340	114%	
McCloud River at Shasta Lake	392	850	185	460	117%	
Pit River at Shasta Lake	1,056	2,203	480	1,150	109%	
Total Inflow to Shasta Lake	1,801	3,525	726	2,050	114%	1,690 - 2,680
Sacramento River above Bend Bridge, near Red Bluff	2,451	5,075	943	2,720	111%	2,200 - 3,640
Feather River						
Feather River at Lake Almanor near Prattville (3)	333	675	120	330	99%	
North Fork at Pulga (3)	1,028	2,416	243	1,010	98%	
Middle Fork near Clio (4)	86	518	4	85	99%	
South Fork at Ponderosa Dam (3)	110	267	13	105	95%	
Total Inflow to Oroville Reservoir	1,831	4,676	392	1,840	100%	1,500 - 2,560
Yuba River						
North Yuba below Goodyears Bar (3)	286	647	51	280	98%	
Inflow to Jackson Mdw and Bowman Reservoirs (3)	112	236	25	110	98%	
South Yuba at Langs Crossing (3)	233	481	57	220	94%	
Yuba River at Smartville	1,029	2,424	200	1,010	98%	810 - 1,380
American River						
North Fork at North Fork Dam (3)	262	716	43	240	92%	
Middle Fork near Auburn (3)	522	1,406	100	470	90%	
Silver Creek Below Camino Diversion Dam (3)	173	386	37	150	87%	
Total Inflow to Folsom Reservoir	1,261	3,074	229	1,170	93%	960 - 1,650
SAN JOAQUIN RIVER						
Cosumnes River at Michigan Bar	128	363	8	105	82%	65 - 175
Mokelumne River						
North Fork near West Point (5)	437	829	104	380	87%	
Total Inflow to Pardee Reservoir	459	1,065	102	430	94%	350 - 560
Stanislaus River						
Middle Fork below Beardsley Dam (3)	334	702	64	310	93%	
North Fork Inflow to McKays Point Dam (3)	224	503	34	200	89%	
Total Inflow to New Melones Reservoir	699	1,710	116	680	97%	560 - 900
Tuolumne River						
Cherry Creek & Eleanor Creek near Hetch Hetchy (3)	322	727	97	310	96%	
Tuolumne River near Hetch Hetchy (3)	606	1,392	153	600	99%	
Total Inflow to Don Pedro Reservoir	1,184	2,682	301	1,180	100%	1,030 - 1,500
Merced River						
Merced River at Pohono Bridge (3)	362	888	80	370	102%	
Total Inflow to Lake McClure	611	1,587	123	610	100%	530 - 800
San Joaquin River						
San Joaquin River at Mammoth Pool (6)	1,014	2,279	235	970	96%	
Big Creek below Huntington Lake (6)	95	264	11	90	95%	
South Fork near Florence Lake (6)	202	511	58	190	94%	
Total Inflow to Millerton Lake	1,212	3,355	262	1,190	98%	1,020 - 1,500
TULARE LAKE						
Kings River						
North Fork Kings River near Cliff Camp (3)	239	565	50	240	100%	
Total Inflow to Pine Flat Reservoir	1,183	3,114	273	1,170	99%	1,010 - 1,440
Kaweah River at Terminus Reservoir	276	814	61	250	91%	215 - 330
Tule River at Success Reservoir	59	259	2	46	78%	36 - 74
Kern River						
Kern River near Kernville (3)	373	1,203	83	270	72%	
Total Inflow to Isabella Reservoir	442	1,657	84	330	75%	270 - 460

(1) See inside back cover for definition

(2) All 50 year averages are based on years 1946-1995 unless otherwise not

(3) 50 year average based on years 1941-9

(4) 44 year average based on years 1936-79

(5) 36 year average based on years 1936-7

(6) 45 year average based on years 1936-8

APRIL 1, 2000 FORECASTS
WATER YEAR UNIMPAIRED RUNOFF

HISTORICAL			Unimpaired Runoff in 1,000 Acre-Feet (1)									FORECAST		
50 Yr Avg (2)	Max of Record	Min of Record	Oct Thru Jan*	Feb *	Mar *	Apr	May	Jun	Jul	Aug & Sep	Water Year Forecasts	Pct of Avg	80 % Probability Range (1)	
856	1,964	165												
1,184	2,353	577												
3,078	5,647	1,484												
5,896	10,796	2,479	1,785	1,545	1,090	840	590	360	260	480	6,950	118%	6,500 -	7,680
8,518	17,180	3,294	2,395	2,500	1,795	1,130	770	480	340	590	10,000	117%	9,360 -	11,060
780	1,269	366												
2,417	4,400	666												
219	637	24												
291	562	32												
4,526	9,492	994	820	980	755	760	650	290	140	185	4,580	101%	4,200 -	5,380
564	1,056	102												
181	292	30												
379	565	98												
2,337	4,926	369	330	525	365	410	400	160	40	40	2,270	97%	2,070 -	2,670
616	1,234	66												
1,070	2,575	144												
318	705	59												
2,674	6,381	349	400	680	430	450	460	210	50	30	2,710	101%	2,490 -	3,220
378	1,253	20	60	153	76	55	35	12	3	1	395	104%	350 -	470
626	1,009	197												
736	1,800	129	75	110	95	130	190	100	10	5	715	97%	630 -	850
471	929	88												
1,131	2,952	155	130	190	160	210	270	160	40	20	1,180	104%	1,060 -	1,420
461	1,147	123												
770	1,661	258												
1,857	4,430	383	170	275	255	300	450	350	80	30	1,910	103%	1,750 -	2,250
461	1,020	92												
952	2,859	150	70	175	115	160	250	160	40	10	980	103%	900 -	1,190
1,337	2,964	308												
112	298	14												
248	653	71												
1,753	4,642	362	120	155	165	260	440	360	130	60	1,690	96%	1,510 -	2,030
284	607	58												
1,647	4,294	383	85	110	120	230	440	380	120	55	1,540	94%	1,370 -	1,840
431	1,402	92	22	42	52	70	100	65	15	9	375	87%	330 -	460
135	615	16	11	25	27	22	16	6	2	1	110	81%	100 -	140
558	1,577	163												
694	2,309	175	55	30	45	80	120	90	40	30	490	71%	420 -	650

* Indicates observed runoff

APRIL 1, 2000 FORECASTS
APRIL-JULY UNIMPAIRED RUNOFF

HYDROLOGIC REGION and Watershed	Unimpaired Runoff in 1,000 Acre-Feet (1)				
	HISTORICAL			FORECAST	
	50 Yr Avg (2)	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg
NORTH COAST					
Trinity River					
Total Inflow to Lewiston Lake	642	1,593	80	760	118%
Scott River					
Near Fort Jones	200	n/a	n/a	230	115%
Klamath River					
Total inflow to Upper Klamath Lake (3)	509	758	280	450	88%
NORTH LAHONTAN					
Truckee River					
Lake Tahoe to Farad accretions	264	713	58	230	87%
Lake Tahoe Rise (assuming gates closed, in feet)	1.4	3.6	0.2	1.2	86%
Carson River					
West Fork at Woodfords	54	135	12	50	93%
East Fork near Gardnerville	183	407	43	165	90%
Walker River					
West Fork near Coleville	143	330	35	130	91%
East Fork near Bridgeport	61	209	7	55	90%
SOUTH LAHONTAN					
Owens River					
Total tributary flow to Owens River (4)	226	579	96	204	90%

(1) See inside back cover for definition

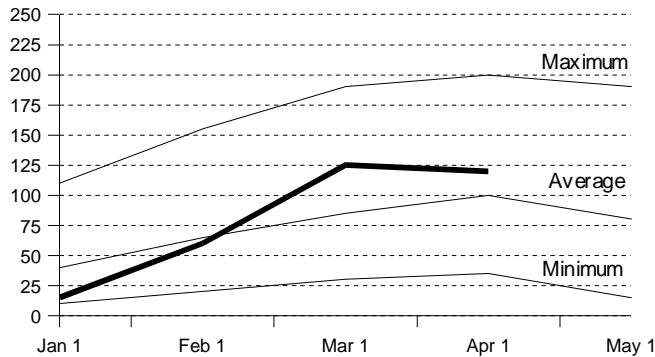
(2) All 50 year averages are based on years 1946-1995 unless otherwise not

(3) Forecast by U.S. Natural Resources Conservation Service and National Weather Service California-Nevada River Forecast Center
April through September forecast, 30 year average based on years 1961-199

(4) Forecast by Department of Water and Power, City of Los Angeles

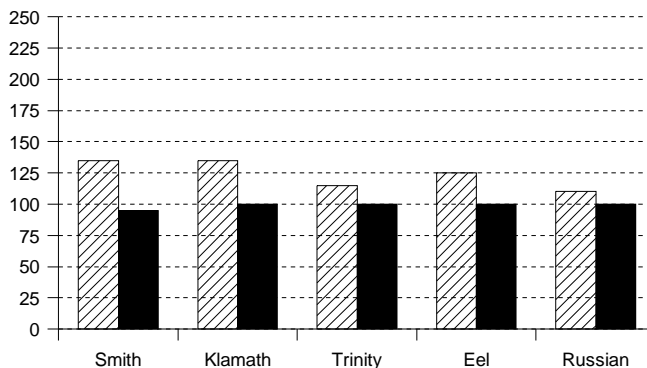
Snowpack Accumulation

Water Content in % of April 1 Average



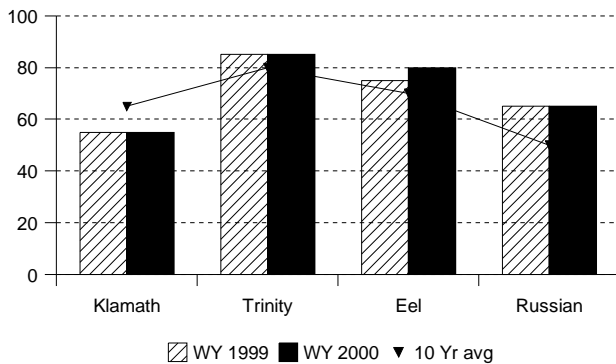
Precipitation

October 1 to date in % of Average



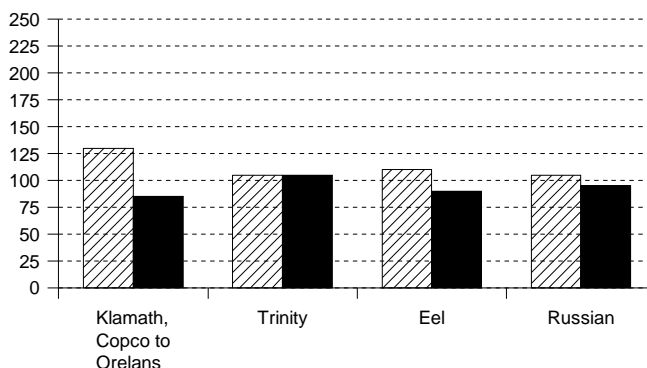
Reservoir Storage

Contents of major reservoirs in % of capacity



Runoff

October 1 to date in % of average



NORTH COAST REGION

SNOWPACK– First of the month measurements made at 17 snow courses indicate an area wide snow water equivalent of 35.2 inches. This is 120 percent of the April 1 average. Last year at this time the pack was holding 43.8 inches of water.

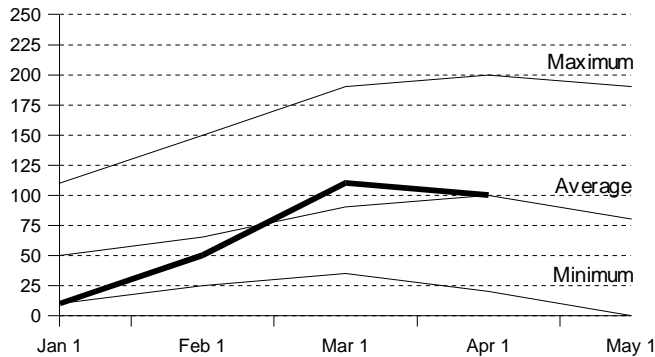
PRECIPITATION – Seasonal precipitation (October 1 through the end of last month) on this area was 100 percent of normal. Precipitation last month was about 55 percent of the monthly average. Seasonal precipitation at this time last year stood at 125 percent of normal.

RESERVOIR STORAGE– First of the month storage in 7 reservoirs was 2.6 million acre–feet which is 110 percent of average. About 80 percent of available capacity was being used. Storage in these reservoirs at this time last year was 105 percent of average.

RUNOFF –Seasonal runoff of streams draining the area totaled 8.5 million acre–feet which is 90 percent of the average for this period. Last year, runoff for the same period was 115 percent of average.

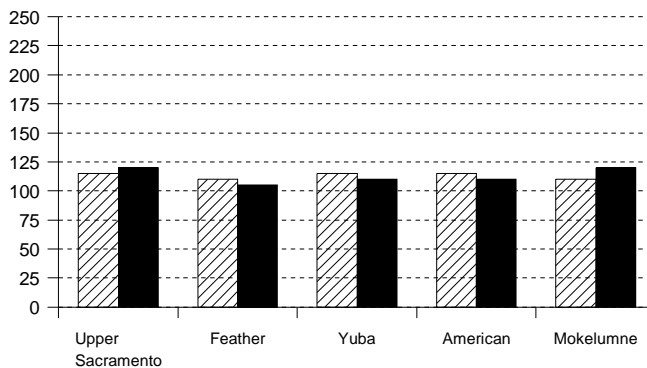
Snowpack Accumulation

Water Content in % of April 1 Average



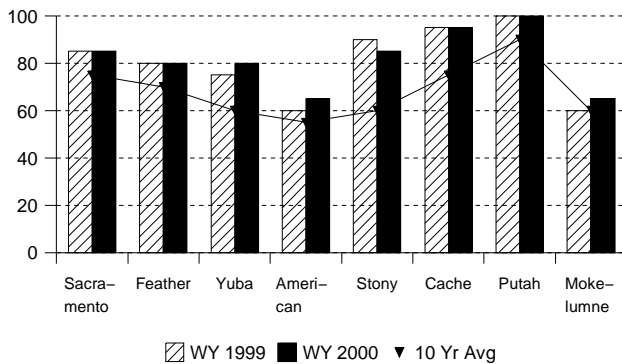
Precipitation

October 1 to date in % of Average



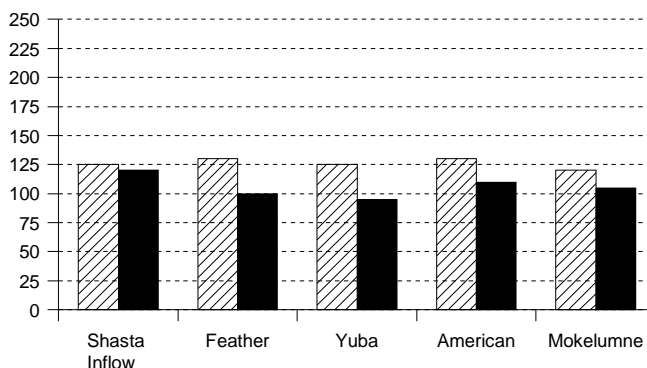
Reservoir Storage

Contents of major reservoirs in % of capacity



Runoff

October 1 to date in % of average



SACRAMENTO RIVER REGION

SNOWPACK– First of the month measurements made at 82 snow courses indicate an area wide snow water equivalent of 30.2 inches. This is 100 percent of the April 1 average. Last year at this time the pack was holding 37.4 inches of water.

PRECIPITATION – Seasonal precipitation (October 1 through the end of last month) on this area was 110 percent of normal. Precipitation last month was about 65 percent of the monthly average. Seasonal precipitation at this time last year stood at 110 percent of normal.

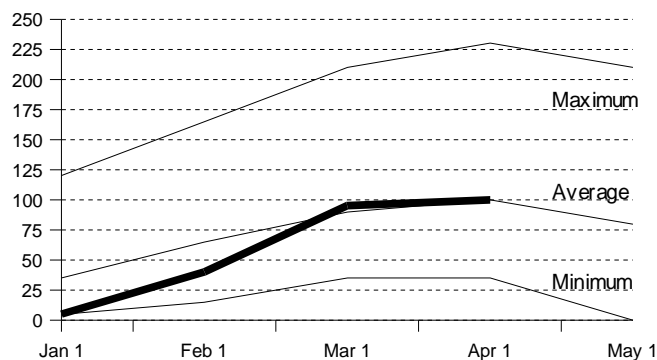
RESERVOIR STORAGE– First of the month storage in 43 reservoirs was 13.1 million acre–feet which is 110 percent of average. About 80 percent of available capacity was being used. Storage in these reservoirs at this time last year was 105 percent of average.

RUNOFF – Seasonal runoff of streams draining the area totaled 11.8 million acre–feet which is 110 percent of average for this period. Last year, runoff for the same period was 120 percent of average.

The **Sacramento Region 40–30–30 Water Supply Index** is forecast to be 9.2 assuming median meteorological conditions for the remainder of the year. This classifies the year as "wet" in the Sacramento Valley according to the State Water Resources Control Board.

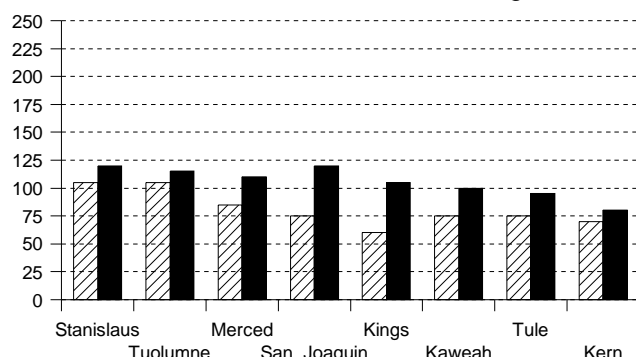
Snowpack Accumulation

Water Content in % of April 1 Average



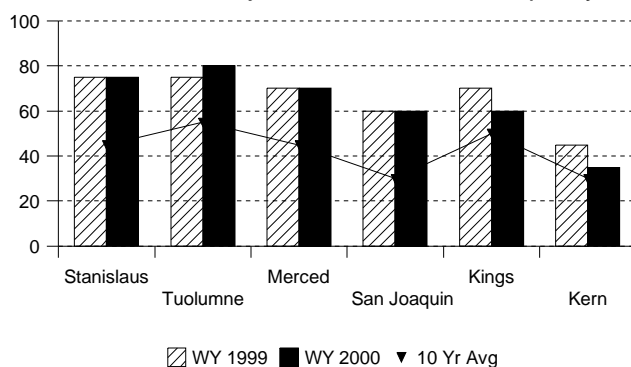
Precipitation

October 1 to date in % of Average



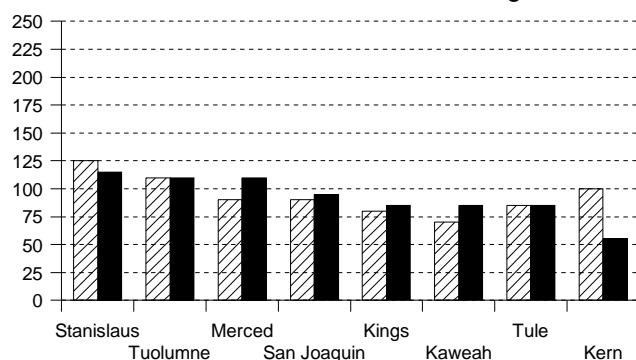
Reservoir Storage

Contents of major reservoirs in % of capacity



Runoff

October 1 to date in % of average



SAN JOAQUIN RIVER AND TULARE LAKE REGIONS

SNOWPACK– First of the month measurements made at 70 **San Joaquin Region** snow courses indicate an area wide snow water equivalent of 31.2 inches. This is 100 percent of the April 1 average. Last year at this time the pack was holding 32.2 inches of water.

At the same time 46 **Tulare Lake Region** snow courses indicated a basin-wide snow water equivalent of 23.2 inches which is 100 percent of the average for April 1. Last year at this time the basin was holding 14.4 inches of water.

PRECIPITATION – Seasonal precipitation (October 1 through the end of last month) on the **San Joaquin Region** was 115 percent of normal. Precipitation last month was about 50 percent of the monthly average. Seasonal precipitation at this time last year stood at 95 percent of normal. Seasonal precipitation on the **Tulare Lake Region** was 95 percent of normal. Precipitation last month was about 80 percent of the monthly average. Seasonal precipitation at this time last year stood at 75 percent of normal.

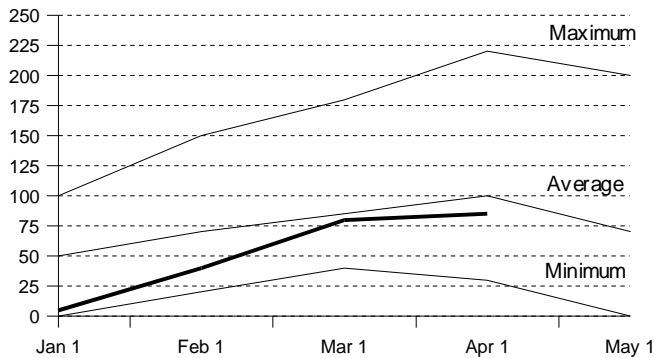
RESERVOIR STORAGE– First of the month storage in 33 **San Joaquin Region** reservoirs was 8.9 million acre-feet which is 125 percent of average. About 80 percent of available capacity was being used. Storage in these reservoirs at this time last year was 125 percent of average. First of the month storage in 6 **Tulare Lake Region** reservoirs was 1.0 million acre-feet which is 120 percent of average and about 50 percent of available capacity. Storage in these reservoirs at this time last year was 140 percent of average.

RUNOFF– Seasonal runoff of streams draining the **San Joaquin Region** totaled 2.5 million acre-feet which is 110 percent of average for this period. Last year, runoff for the same period was 110 percent of average. Seasonal runoff of streams draining the **Tulare Lake Basin** totaled 635 thousand acre-feet which is 80 percent of average for this period. Last year runoff for this same period was 85 percent of average.

The **San Joaquin Region 60–20–20 Water Supply Index** is forecast to be 3.3 assuming median meteorological conditions. This classifies the year as "above normal" in the San Joaquin Region according to the State Water Resources Control Board.

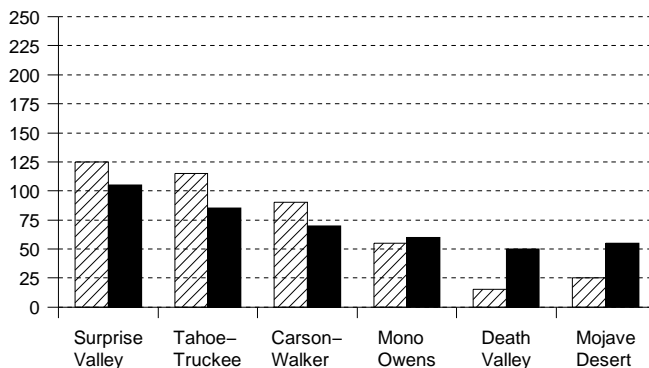
Snowpack Accumulation

Water Content in % of April 1 Average



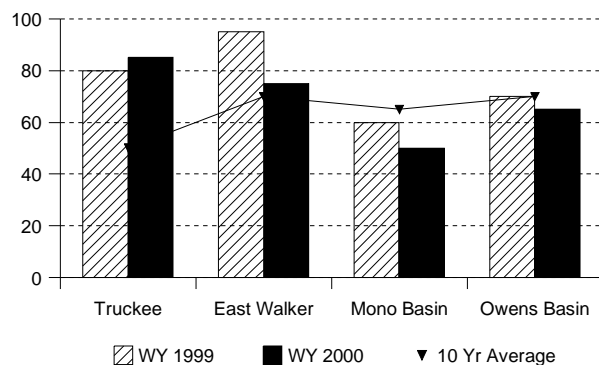
Precipitation

October 1 to date in % of Average



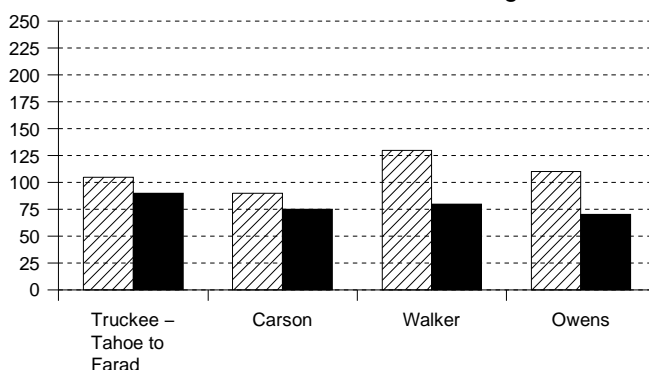
Reservoir Storage

Contents of major reservoirs in % of capacity



Runoff

October 1 to date in % of average



NORTH AND SOUTH LAHONTAN REGIONS

SNOWPACK– First of the month measurements made at 16 **North Lahontan** snow courses indicate an area wide snow water equivalent of 23.6 inches. This is 80 percent of the April 1 average. Last year at this time the pack was holding 28.3 inches of water. At the same time 22 **South Lahontan Region** snow courses indicated a basin-wide snow water equivalent of 19.6 inches which is 90 percent of the average for April 1. Last year at this time the basin was holding 16.4 inches of water.

PRECIPITATION – Seasonal precipitation (October 1 through the end of last month) on the **North Lahontan** was 85 percent of normal. Precipitation last month was about 40 percent of the monthly average. Seasonal precipitation at this time last year stood at 110 percent of normal. Seasonal precipitation on the **South Lahontan** was 55 percent of normal. Precipitation last month was about 100 percent of the monthly average. Seasonal precipitation at this time last year stood at 30 percent of normal.

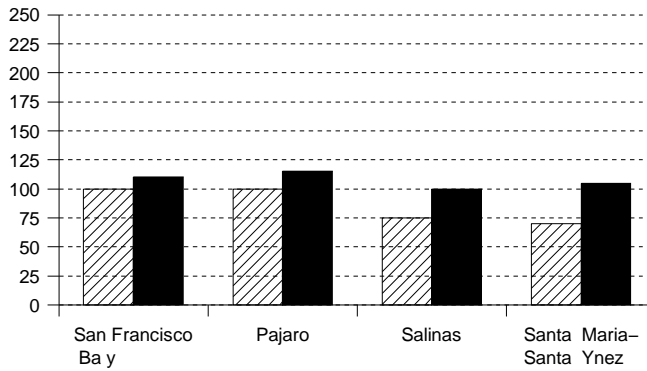
RESERVOIR STORAGE– First of the month storage in 5 **North Lahontan** reservoirs was 907 thousand acre-feet which is 165 percent of average. About 85 percent of available capacity was being used. Storage in these reservoirs at this time last year was 145 percent of average. Lake Tahoe was 5.2 feet above its natural rim on April 1. First of the month storage in 8 **South Lahontan** reservoirs was 300 thousand acre-feet which is 110 percent of average and about 75 percent of available capacity. Storage in these reservoirs at this time last year was 105 percent of average.

RUNOFF– Seasonal runoff of streams draining the **North Lahontan Region** totaled 230 thousand acre-feet which is 85 percent of average for this period. Last year, runoff for the same period was 105 percent of average.

Seasonal runoff of the Owens River in the **South Lahontan** totaled 48 thousand acre-feet which is 70 percent of average for this period. Last year runoff for this same period was 110 percent of average.

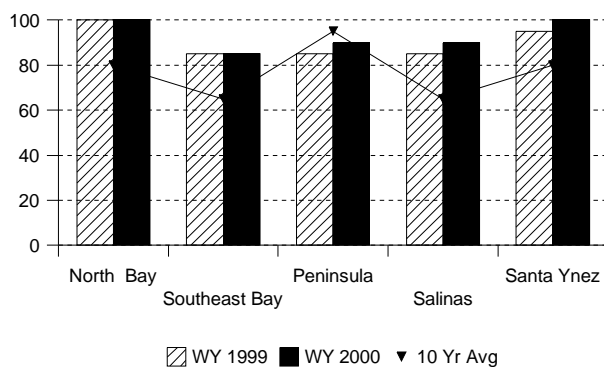
Precipitation

October 1 to date in % of Average



Reservoir Storage

Contents of major reservoirs in % of capacity



Runoff

October 1 to date in % of average



SAN FRANCISCO BAY AND CENTRAL COAST REGIONS

PRECIPITATION – Seasonal precipitation (October 1 through the end of last month) on the **San Francisco Bay Region** was 110 percent of normal. Precipitation last month was about 80 percent of the monthly average. Seasonal precipitation at this time last year stood at 100 percent of normal.

Seasonal precipitation on the **Central Coast Region** was 105 percent of normal. Precipitation last month was about 80 percent of the monthly average. Seasonal precipitation at this time last year stood at 85 percent of normal.

RESERVOIR STORAGE– First of the month storage in 18 **San Francisco Bay Region** reservoirs was 620 thousand acre–feet which is 120 percent of average. About 90 percent of available capacity was being used. Storage in these reservoirs at this time last year was 115 percent of average.

First of the month storage in 6 **Central Coast Region** reservoirs was 895 thousand acre–feet which is 135 percent of average and about 90 percent of available capacity. Storage in these reservoirs at this time last year was 130 percent of average.

RUNOFF– Seasonal runoff of the Napa River in the **San Francisco Bay Region** totaled 63 thousand acre–feet which is 105 percent of average for this period. Last year, runoff for the same period was 120 percent of average.

Seasonal runoff of streams draining the **Central Coast Region** totaled 305 thousand acre–feet which is 110 percent of average for this period. Last year runoff for this same period was 50 percent of average.

SOUTH COAST AND COLORADO RIVER REGIONS

PRECIPITATION – October through March (seasonal) precipitation on the **South Coast Region** is 65 percent of normal. March precipitation was 75 percent of the monthly average. Seasonal precipitation at this time last year was 50 percent of normal. Seasonal precipitation on the **Colorado River–Desert Region** is 20 percent of normal. March precipitation was 75 percent of the monthly average. Seasonal precipitation at this time last year stood at 25 percent of average.

RESERVOIR STORAGE – April 1 storage in 29 major **South Coast Region** reservoirs is 1.5 million acre–feet or 110 percent of average. About 75 percent of available capacity is being used. Storage in these reservoirs at this time last year was 120 percent of average. On March 31 combined storage in Lakes Powell, Mead, Mohave and Havasu was about 48 million acre–feet or about 120 percent of average. About 90 percent of available capacity was in use. Last year at this time, these reservoirs were storing 120 percent of average.

RUNOFF – Seasonal runoff from selected **South Coast Region** streams totaled 6 thousand acre–feet which is 15 percent of average. Seasonal runoff from these streams last year was 40 percent of average.

COLORADO RIVER – The April –July inflow to Lake Powell is forecast to be 6.6 million acre–feet, which is 85 percent of average. The April 1 snowpack in the Colorado River basin above Lake Powell is 90 percent of average, highest in the Upper Colorado at 105 percent and lowest in the San Juan at 62 percent.

CENTRAL VALLEY PROJECT

Based on April 1 conditions, Bureau of Reclamation water year forecasts for unimpaired runoff to CVP reservoirs are: Trinity–126% of average, Shasta–124% of average, American–105% of average, Stanislaus–106% of average, San Joaquin above Friant–101% of average. As of March 31, 2000 CVP storage was 9.5 million acre–feet which is equal with storage compared to one year ago, and is approximately 117% of normal for that date.

The Bureau of Reclamation announced preliminary water allocations for the CVP contractors in March 2000. Based on conservative water supply forecasts prepared from information available March 1, 2000 CVP water allocations were: Agricultural contractors North of Delta –100% and South of Delta–60%; Urban contractors North of Delta–100% South of Delta 85%; Sacramento River water rights and San Joaquin Exchange Contractors–100%; Wildlife Refuges–100%. Stanislaus Contractors –90,000 acre–feet. Friant Contractors– Class 1–100%; Class II to be seasonally determined. Updated allocations will be announced in Mid–April.

STATE WATER PROJECT

Total storage in the major SWP reservoirs was about 4.6 MAF on March 31, 2000, compared with 4.6 MAF at this time in 1999. The average storage in the major SWP reservoirs at the end of March is about 4.2 MAF. The March 31 storage at Lake Oroville was about 2.8 MAF as compared to about 2.9 MAF last year.

The State's share of San Luis Reservoir storage was full (1.06 MAF) as it was at this time last year. The USBR share of San Luis Reservoir filled on March 23, 2000. The combined storage of our southern reservoirs was about 652,609 AF on March 31 as compared with 626,000 AF at this same time last year.

SWP water deliveries for 2000 through March were about 662,900 AF. This is a combination of project, transfer, and exchange waters. This is about 324,500 AF more than that delivered during the same period in 1999.

State Water Project water delivery allocations for 2000 were increased to 100% (3.6 million acre–feet).

MAJOR WATER DISTRIBUTION PROJECTS
RESERVOIR STORAGE

(AVERAGES BASED ON 1946-95 OR PERIOD RECORD)

RESERVOIR	CAPACITY 1,000 AF	AVERAGE STORAGE 1,000 AF	1999 1,000 AF	STORAGE AT END OF March 2000 1,000 AF	PERCENT AVERAGE	PERCENT CAPACITY
<i>STATE WATER PROJECT</i>						
Lake Oroville	3,538	2,768	2,941	2,839	103%	80%
San Luis Reservoir (SWP)	1,062	966	1,062	1,062	110%	100%
Lake Del Valle	77	37	37	39	106%	51%
Lake Silverwood	73	67	70	91	136%	124%
Pyramid Lake	171	161	167	165	102%	96%
Castaic Lake	324	270	269	299	111%	92%
Perris Lake	131	118	124	119	101%	90%
<i>CENTRAL VALLEY PROJECT</i>						
Clair Engle Lake	2,448	1,934	2,096	2,093	108%	86%
Lake Shasta	4,552	3,697	3,863	3,752	101%	82%
Whiskeytown Lake	241	213	210	214	100%	89%
Folsom Lake	977	623	615	674	108%	69%
New Melones Reservoir	2,420	1,419	1,997	2,011	142%	83%
Millerton Lake	520	330	459	462	140%	89%
San Luis Reservoir (CVP)	971	854	966	965	113%	99%
<i>COLORADO RIVER PROJECT</i>						
Lake Mead	26,159	19,797	24,662	24,659	125%	94%
Lake Powell	25,002	17,729	20,916	20,819	117%	83%
Lake Mohave	1,810	1,645	1,677	1,658	101%	92%
Lake Havasu	619	562	541	535	95%	86%
<i>EAST BAY MUNICIPAL UTILITY DISTRICT</i>						
PARDEE RESERVOIR	198	180	175	187	104%	94%
Camanche Reservoir	417	254	281	281	111%	67%
East Bay (4 res.)	151	132	139	137	104%	91%
<i>CITY AND COUNTY OF SAN FRANCISCO</i>						
Hetch-Hetchy Reservoir	360	123	204	172	140%	48%
Cherry Lake	268	113	203	208	184%	78%
Lake Eleanor	26	11	16	25	237%	96%
Souty Bay/Peninsula (4 res.)	225	176	209	213	121%	95%
<i>CITY OF LOS ANGELES (D.W.P.)</i>						
Lake Crowley	183	128	135	132	104%	72%
Grant Lake	48	25	39	37	144%	77%
Other Aqueduct Storage (6 res.)	83	77	58	64	83%	77%

TELEMETERED SNOW WATER EQUIVALENTS

April 1, 2000

(AVERAGES BASED ON PERIOD RECORD)

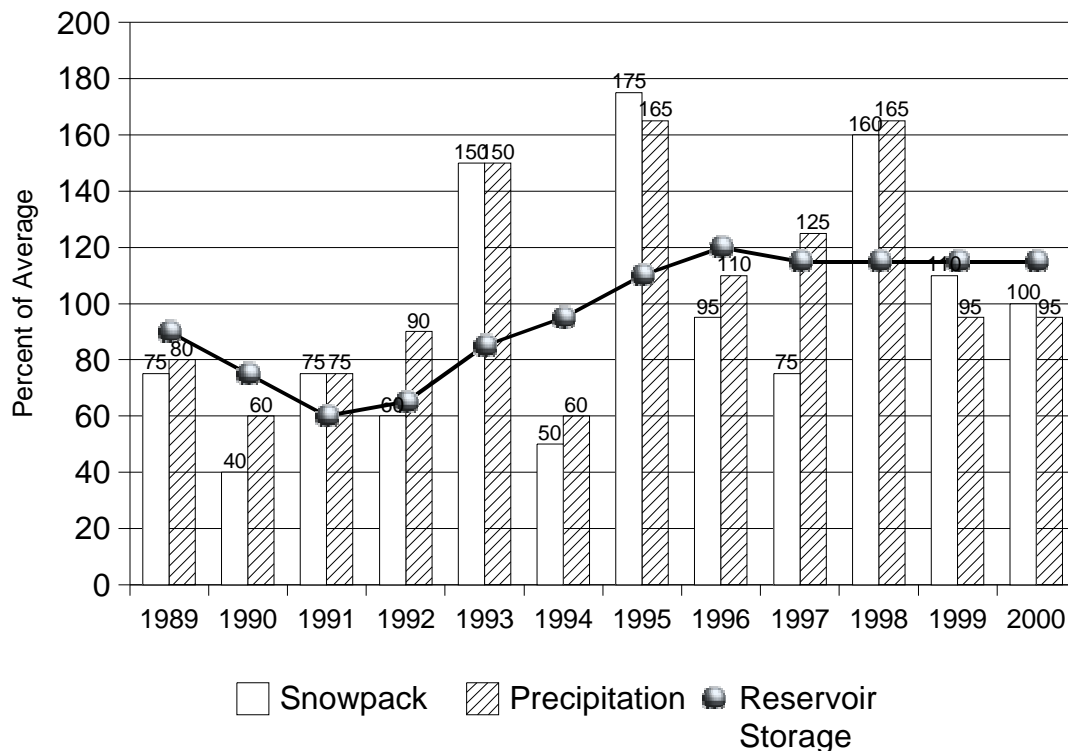
		INCHES OF WATER EQUIVALENT				
BASIN NAME		APRIL 1	PERCENT		24 HRS	1 WEEK
STATION NAME	ELEV	AVERAGE	Apr 1	OF AVERAGE	PREVIOUS	PREVIOUS
TRINITY RIVER						
Peterson Flat	7150'	29.2	26.8	91.8	27.4	31.2
Red Rock Mountain	6700'	39.6	—	—	—	—
Bonanza King	6450'	40.5	45.7	112.9	45.9	46.6
Shimmy Lake	6200'	40.3	—	—	—	—
Middle Boulder 3	6200'	28.3	34.8	123.0	36.1	38.1
Highland Lakes	6030'	29.9	46.5	155.5	46.8	47.8
Scott Mountain	5900'	16.0	31.0	193.7	31.5	34.7
Mumbo Basin	5700'	22.4	17.5	78.2	17.8	19.3
Big Flat	5100'	15.8	17.4	109.9	17.7	19.2
SACRAMENTO RIVER						
Cedar Pass	7100'	18.1	14.6	80.7	14.9	15.8
Blacks Mountain	7100'	12.7	11.2	88.2	11.4	13.4
Sand Flat	6750'	42.4	48.2	113.8	48.2	49.1
Medicine Lake	6700'	32.6	34.7	106.4	35.2	36.8
Adin Mountain	6350'	13.6	11.8	86.8	12.2	13.5
Snow Mountain	5950'	27.0	37.8	140.0	38.2	40.8
Slate Creek	5600'	29.0	47.0	162.2	47.5	49.0
Stouts Meadow	5400'	36.0	42.4	117.7	43.6	45.4
FEATHER RIVER						
Kettle Rock	7300'	25.5	32.2	126.3	32.6	35.0
Grizzly Ridge	6900'	29.7	30.1	101.4	30.6	32.4
Pilot Peak	6800'	52.6	40.3	76.7	40.7	44.8
Gold Lake	6750'	36.5	43.3	118.7	43.4	43.9
Humbug	6500'	28.0	44.8	159.9	45.0	46.7
Rattlesnake	6100'	14.0	27.5	196.3	28.1	31.6
Bucks Lake	5750'	44.7	47.3	105.8	47.5	49.1
Four Trees	5150'	20.0	24.1	120.6	24.7	28.0
EEL RIVER						
Noel Spring	5100'	—	0.0	—	0.0	0.0
YUBA & AMERICAN RIVERS						
Lake Lois	8800'	39.5	43.1	109.2	43.1	43.8
Schneiders	8750'	34.5	41.1	119.1	41.3	42.5
Caples Lake	7800'	30.9	22.6	73.0	22.7	23.8
Alpha	7600'	35.9	29.6	82.6	29.9	32.4
Beta	7600'	35.9	—	—	—	—
Meadow Lake	7200'	55.5	56.1	101.0	56.5	—
Silver Lake	7100'	22.7	20.0	88.1	20.5	23.4
Central Sierra Snow Lab	6950'	33.6	38.1	113.4	38.6	41.6
Huysink	6600'	42.6	33.4	78.3	33.6	35.2
Van Vleck	6700'	35.9	31.3	87.1	31.6	34.6
Robbs Saddle	5900'	21.4	20.3	94.9	20.6	22.1
Greek Store	5600'	21.0	21.6	102.9	22.1	24.4
Blue Canyon	5280'	9.0	2.8	31.1	3.6	8.7
Robbs Powerhouse	5150'	5.2	0.0	0.0	0.9	5.6
MOKELUMNE & STANISLAUS RIVERS						
Deadman Creek	9250'	37.2	25.2	67.7	25.7	25.7
Highland Meadow	8800'	47.9	25.3	52.9	25.3	26.0
Gianelli Meadow	8350'	55.5	40.3	72.6	40.6	41.9
Lower Relief Valley	8100'	41.2	37.7	91.6	37.7	39.0
Blue Lakes	8000'	33.1	26.0	78.5	26.0	26.0
Mud Lake	7900'	44.9	47.9	106.7	48.2	49.2
Stanislaus Meadow	7750'	47.5	38.6	81.3	38.6	39.4
Bloods Creek	7200'	35.5	25.0	70.3	25.2	26.8
Black Springs	6500'	32.0	21.0	65.6	21.1	22.0
TUOLUMNE & MERCED RIVERS						
Dana Meadows	9800'	27.7	25.5	92.0	25.5	26.1
Slide Canyon	9200'	41.1	36.0	87.6	36.0	36.6
Lake Tenaya	8150'	33.1	40.9	123.6	42.2	46.2
Tuolumne Meadows	8600'	22.6	18.5	81.8	18.8	19.9
Horse Meadow	8400'	48.6	46.5	95.7	46.5	46.5
Ostrander Lake	8200'	34.8	28.4	81.6	30.0	31.7
Paradise Meadow	7650'	41.3	37.7	91.2	37.7	40.3
Gin Flat	7050'	34.2	17.8	51.9	18.3	20.9
Lower Kibbie Ridge	6600'	27.4	14.3	52.0	14.9	16.9

		INCHES OF WATER EQUIVALENT				
BASIN NAME		APRIL 1	PERCENT		24 HRS	1 WEEK
STATION NAME	ELEV	AVERAGE	Apr 1	OF AVERAGE	PREVIOUS	PREVIOUS
SAN JOAQUIN RIVER						
Volcanic Knob	10100'	30.1	25.5	84.7	26.1	26.1
Agnew Pass	9450'	32.3	28.8	89.2	28.8	29.2
Kaiser Point	9200'	37.8	33.8	89.5	34.1	35.8
Green Mountain	7900'	30.8	30.0	97.4	30.0	31.5
Tamarack Summit	7600'	30.5	24.5	80.3	25.0	26.8
Chilkoot Meadow	7150'	38.0	26.5	69.8	26.8	28.4
Huntington Lake	7000'	20.1	17.9	89.0	18.4	20.6
Graveyard Meadow	6900'	18.8	16.3	86.8	16.7	19.7
Poison Ridge	6900'	28.9	17.9	61.9	18.5	22.0
KINGS RIVER						
Bishop Pass	11200'	34.0	25.9	76.1	25.9	27.2
Charlotte Lake	10400'	27.5	22.7	82.7	22.9	23.5
State Lakes	10400'	29.0	—	—	—	—
Mitchell Meadow	10375'	32.9	33.0	100.3	33.8	35.2
Blackcap Basin	10300'	34.3	35.7	104.1	36.3	37.0
Upper Burnt Corral	9700'	34.6	39.7	114.7	40.3	42.3
West Woodchuck Meadow	9100'	32.8	34.0	103.7	34.2	35.1
Big Meadows	7600'	25.9	26.5	102.4	26.9	28.9
KAWEAH & TULE RIVERS						
Quaking Aspen	7200'	21.0	14.2	67.4	14.5	17.4
Giant Forest	6400'	10.0	8.6	86.0	9.3	12.4
KERN RIVER						
Upper Tyndall Creek	11500'	27.7	21.2	76.5	21.2	21.2
Crabtree Meadow	10700'	19.8	14.6	73.6	14.6	14.6
Chagoopa Plateau	10300'	21.8	23.3	106.9	23.3	23.3
Pascoes	9150'	24.9	24.8	99.6	25.1	25.2
Tunnel Guard Station	8950'	15.6	8.8	56.4	8.8	10.8
Wet Meadows	8900'	30.3	24.5	80.9	25.1	27.3
Casa Vieja Meadows	8400'	20.9	15.7	75.3	15.7	16.4
Beach Meadows	7650'	11.0	1.6	14.7	1.9	5.7
SURPRISE VALLEY AREA						
Dismal Swamp	7050'	29.2	28.2	96.6	28.7	29.9
TRUCKEE RIVER						
Mount Rose Ski Area	8850'	38.5	35.2	91.4	35.2	35.4
Independence Lake	8450'	41.4	42.1	101.7	42.1	42.0
Big Meadows	8700'	25.7	17.7	68.9	18.1	18.9
Squaw Valley	7800'	46.5	52.5	112.9	52.6	56.3
Independence Camp	7000'	21.8	11.1	50.9	11.3	12.0
Independence Creek	6500'	12.7	12.0	94.5	12.2	13.2
Truckee 2	6350'	14.3	15.0	104.9	15.2	18.1
LAKE TAHOE BASIN						
Heavenly Valley	8800'	28.1	21.6	76.9	21.6	22.4
Hagans Meadow	8000'	16.5	10.7	64.8	11.0	12.8
Marlette Lake	8000'	21.1	22.0	104.3	22.1	22.9
Echo Peak 5	7800'	39.5	39.4	99.7	39.7	41.5
Rubicon Peak 2	7500'	29.1	24.9	85.6	24.9	26.2
Tahoe City Cross	6750'	16.0	11.7	73.1	12.2	14.5
Ward Creek 3	6750'	39.4	33.8	85.8	34.2	35.7
Fallen Leaf Lake	6300'	7.0	0.0	0.0	0.0	0.0
CARSON RIVER						
Ebbetts Pass	8700'	38.8	29.5	76.0	29.7	31.0
Poison Flat	7900'	16.2	6.2	38.3	7.1	8.6
Monitor Pass	8300'	—	10.5	—	10.8	12.1
Spratt Creek	6150'	4.5	0.0	0.0	0.0	0.0
WALKER RIVER						
Leavitt Lake	9400'	—	57.1	—	57.1	57.4
Virginia Lakes	9200'	20.3	14.2	70.0	14.2	14.2
Lobdell Lake	9200'	17.3	12.1	69.9	12.1	12.3
Sonora Pass Bridge	8750'	26.0	21.5	82.7	21.5	21.7
Leavitt Meadows	7200'	8.0	7.2	90.0	7.8	9.8
OWENS RIVER/MONO LAKE						
Gem Pass	10750'	31.7	29.0	91.6	29.0	29.7
Sawmill	10300'	19.4	13.1	67.4	13.1	13.7
Cottonwood Lakes	10200'	11.6	8.7	74.8	9.3	9.6
Big Pine Creek	9800'	17.9	9.8	54.7	9.8	10.4
South Lake	9600'	16.0	16.0	100.1	16.0	16.3
Mammoth Pass	9500'	42.4	36.4	85.8	36.6	37.4
Rock Creek Lakes	10000'	14.0	11.1	79.1	11.3	11.7

NORMAL SNOWPACK ACCUMULATION EXPRESSED AS A PERCENT OF APRIL 1ST AVERAGE

AREA	JANUARY	FEBRUARY	MARCH	APRIL	MAY
Central Valley North	45%	70%	90%	100%	75%
Central Valley South	45%	65%	85%	100%	80%
North Coast	40%	60%	85%	100%	80%

April 1 Statewide Conditions



SNOWLINES

Its not too late to register for the 2000 Western Snow Conference annual meeting. It will be held April 17–20 at Port Angeles, WA. For further information regarding the Western Snow Conference contact Frank Gehrke at 916–574–2635 or gridley@water.ca.gov.

Information is available on the web at <http://snobear.colorado.edu/WSC/WSC.html>.

The 2000 California Cooperative Snow Surveys annual meeting will be at the Asilomar Conference Center in Pacific Grove, CA December 6–8, 2000. Mark your calendars now for this important meeting.

Maury Roos is retiring. Call Lenore Keen at 916–574–2605 or lkeen@water.ca.gov by May 19 for reservations to his luncheon to be held on June 9.

The four sites with the Sandia Snow Detectors, Central Sierra Snow Lab, Gin Flat, Big Meadows and Crabree are all performing well. Check our home page for a link which compares the performance of the detectors with the collocated snow pillows.

SNOWPACK - Snow data is a major index of spring and summer runoff from Sierra Nevada watersheds. April 1 data historically reflects the magnitude of the snowpack at or near the maximum seasonal accumulation. Averages are based on April 1 data for the period 1941-1990 (50 years, except for data sites established after 1941).

PRECIPITATION - Averages are based on April 1 data for the period 1941-1990 (50 years, except for data sites established after 1941).

RUNOFF AND FORECASTS - Runoff data and runoff forecasts are shown as unimpaired values. Unimpaired runoff represents the natural water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds. Forecast of runoff assumes median conditions subsequent to the date of forecast.

Runoff probability ranges are statistically derived from historical data. The 80 percent probability range is comprised of the 90 percent exceedence level value and the 10 percent exceedence level value. This means that actual runoff should fall within the stated limits eight times out of ten.

Runoff averages for most streams are based on the period 1946-1995. For more details contact California Cooperative Snow Surveys, P.O. Box 942836, Sacramento, CA 94236-0001, (916) 574-2635 or gridley@water.ca.gov.

INDICES OF WATER AVAILABILITY

The Sacramento River Hydrologic Region 40-30-30 Water Supply Index. The values 40-30-30 represent the percentage weight given to the three variables in the formula for the index. The first variable is the forecasted unimpaired runoff from April through July (40 Percent). The second variable is the forecasted unimpaired runoff from October through March (30 Percent). The third variable is the previous year's index with a cap to account for required flood control releases during wet years. The basins used in this computation are those used in the Sacramento River water year unimpaired runoff.

The Sacramento River water year unimpaired runoff is the sum of: Sacramento River above Bend Bridge, Feather River Inflow to Lake Oroville, Yuba River near Smartville and American River Inflow to Folsom Lake.

The San Joaquin River Hydrologic Region 60-20-20 Water Supply Index. In a similar manner, the values 60-20-20 represents the percentage weights on April through July runoff, October through March runoff and previous year's index. The San Joaquin River unimpaired runoff is the sum of: Stanislaus River Inflow to New Melones Lake, Tuolumne River Inflow to New Don Pedro Reservoir, Merced River Inflow to Lake McClure and San Joaquin River Inflow to Millerton Lake.

Runoff of the eight major rivers of the Sacramento and San Joaquin Regions is the sum of the runoff in the eight major rivers used in the two above indices.

State of California – The Resources Agency
DEPARTMENT OF WATER RESOURCES
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Sacramento, CA 94236-0001

First Class

